

US Forest Service

Caring for the land and serving people



Fire & Aviation Management

Mobile Mapping/Data Collection Apps



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GISS Intermed



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Mobile Mapping Apps Being Used in California:



- **Avenza PDF Maps** – displays geospatial PDFs and integrate GPS locational abilities – download maps, record/export tracks, find coordinate, plot photos, etc. Con – fly off map Free/\$49



- **iGIS** – load zip shp files (pt/ln/pl), export shp files, support large datasets, change color, set zoom scale, arrange layers, GIS like interface, edit databases, export databases. Using for Fire Retardant Avoidance data CA. Free*



- **GAIA GPS** – mapping interface, collect/export tracks, waypoints, tag photos, aviation-like elements, many background maps, NextRAD, can integrate other maps, etc. Con – wonky loading of maps. \$20



- **DualGPS** – Only have WiFi – use this bluetooth tool to connect to DualGPS 150 receiver. Easy setup. App Free, GPS \$100



- **Qrafter** – scans many codes including barcodes, QR codes, micro QR, tags, Aztec codes, many embedded elements, copy URL to clipboard – SMS sending, email, Facebook, Dropbox, etc.



- **QR Reader** – scans QR codes, barcodes, words (OCR), scan to PDF feature, scan/share, create QR, approve before visit website, copy URL, etc.

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Mobile Mapping Apps Being Used in California:



- **ForeFlight** – pilots use, flight planning, support, PDFs of airport runways, weather integration, radio frequencies, pushed sectionals and other maps, all integrated with GPS. \$75-\$150. Con – no GIS integration...



- **Disaster Alert (Pacific Disaster Center)** – multi hazard monitoring – hurricane, drought, earthquake, tsunami, floods, fires, etc. world-wide monitoring. Push notifications, integration with numerous sources (NWS, etc.) Free



- **Red Cross apps** – Tornado, Earthquake, Wildfire, Hurricane, etc. Push technology, set warning distance, integrated with NWS, etc. Free



- **Esri ArcGIS (etc.)** – galleries of maps, access your GIS data (setup required), collect, edit, searches, etc. Con – not fully implemented



- **LA County Firefighters Association apps** – **SIT/STAT** (SRA/FRA, fire weather, fire danger, etc.); Helispot Directory, Fire Station Directory, etc.



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Applications Lorri's Research Further:



- **Galileo Offline Maps** – download maps, offline access, GPS tracking, etc Free



- **GIS Kit** – maybe - \$100 (ouch) – subset of GIS Pro app (\$300)



- **Maps 3D** – \$4 – 3D display of interest



- **Trimble** – Map Maker Lite, MyTopoMaps, etc. Integrates with Trimble products and GPS devices.



- **WolfGIS** – GIS on your device - Free

- So many apps, so little time.... More = **Maps with me Lite/Pro, Photo Mapo, SuperSurv, ubAlert, Ushahidi, Waze (now with Google), etc**



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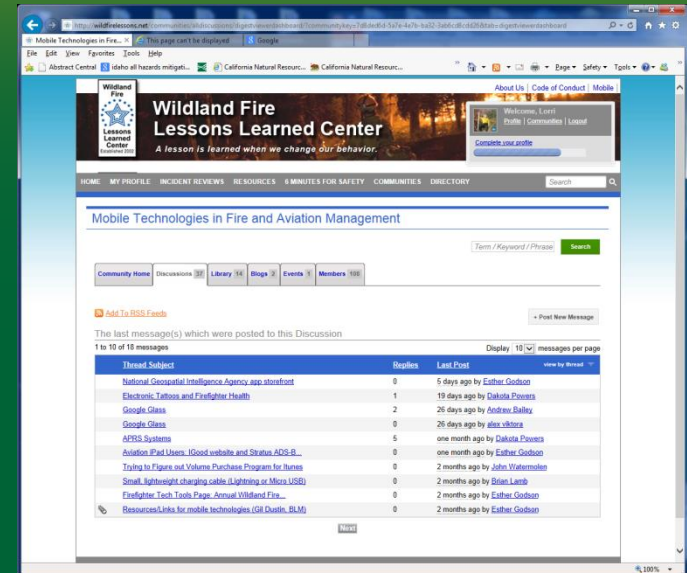
Application Name	Website or Weblink	Operating System	Description	FAM Use	FAM Category	Notes	LPL Comments
Terrain Navigator Pro	http://www.terrainnavigator.com	iOS and Android					
Textilus	https://itunes.apple.com/us/app/textilus-word-offline-microsoft/id571142302?mt=8	iOS	Word processing off line	Productivity			
The Weather Channel (TWC)	http://www.weather.com/services/mobilepush.html	iOS and Android	Weather from The Weather Channel	Weather			
Theodolite	http://hunter.pairsite.com/theodolite/	iOS	georeference pictures with metadata	Unit log/Documentation/Data collection	All		
TMAC 2012	http://lacountyfirefighters.org/index.cfm?title=1&Section=25&PageNum=248	iOS	LA County Fire Fighter app for radio frequencies			LA specific	Not using at this time.
Topo Maps	http://topomapsapp.com/index.html						
Tornado	http://www.redcross.org/mobile-apps/tornado-app		Red Cross app	Mapping		Tornado Warning notifications - uses push technology - tested recently - worked great!	
TripCase							
TweetCaster	https://tweetcaster.com/	iOS and	Twitter aggregator	Social		See Hootsuite for a better app	
Twitter	https://twitter.com/download						
ubAlert	https://itunes.apple.com/us/app/ubalert-disaster-alert-network/id455647337?mt=8	iOS and Android	Social networking for disasters - worldwide	Social Navigation			Testing
uPad	http://www.pockeysoft.com/	iOS					
Ushahidi	http://ushahidi.com/	iOS and Android	Social networking for disasters - worldwide	Social Navigation			Testing
Vine	https://vine.co/	iOS and	6 second video	Social			Use for personal
Waze	https://www.waze.com/	iOS and Android	Community-based mapping traffic and navigation app	Mapping			
Weatherbug Elite		iOS and		Weather	All		
Weatherwise	http://weatherwiseapp.com/	iOS and	Weather Illustrated	Weather			
WebEx	http://www.webex.com/	iOS and Android	Meeting and conferencing tool	Communication			I use this a lot with USGS and other
Wildfire	http://www.redcross.org/mobile-apps/wildfire-app	iOS and Android	Red Cross app	Notifications		Wildfire Warning notifications - uses push technology - tested recently - worked great!	
Wildfire Info	http://www.firechat.com/app/						
Wildland Fire Shelter (New Generation)	http://lacountyfirefighters.org/index.cfm?title=1&Section=25&PageNum=248	iOS	NWCG NFES 2710 publication - augmented with videos	Reference			Not using at this time - get better link!



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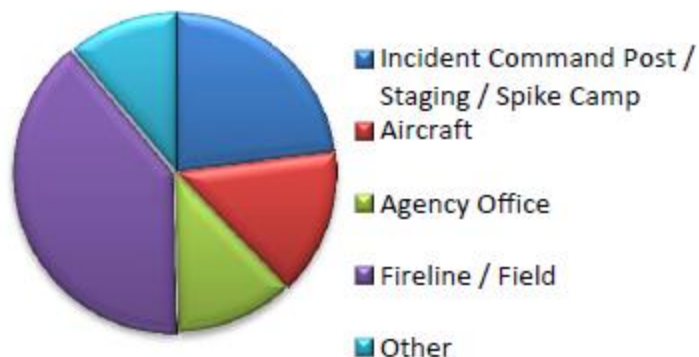
Mobile Mapping Resources:

- Mobile Technologies in Fire and Aviation – Wildland Fire Lessons Learned (<http://wildfirelessons.net/home>)
- USFS Team – Service First team – TC's efforts
- GPS Mobile - <http://fsweb.r5.fs.fed.us/unit/im/gps/>
- Others –
 - NGA - <https://apps.nga.mil/>
 - FEMA - <http://www.fema.gov/mobile-resources>
 - NIFC - <http://www.nifc.gov/wfstar/tools.html>
 - NIFC EGP - <https://egp.nwcg.gov/egp/>
 - GETA - <http://geta.firenet.gov/>
 - USA.gov - <http://apps.usa.gov/>

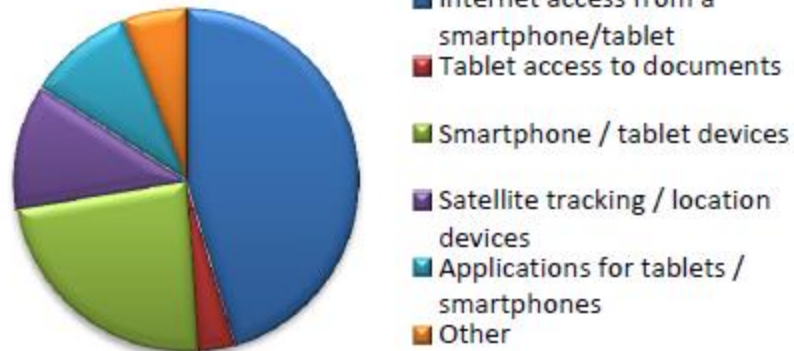


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Primary location of mobile device use



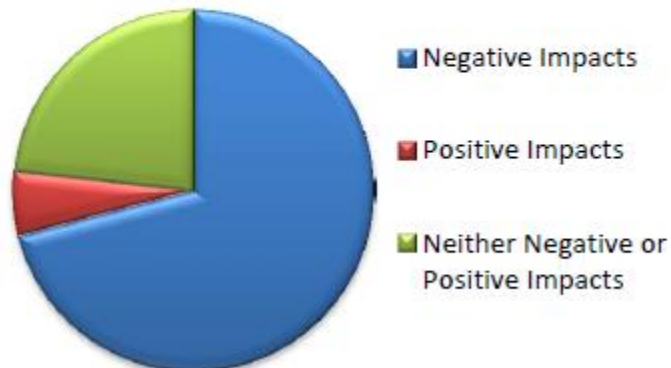
Aspect that most benefited job effectiveness



Positions impacted by limited connectivity



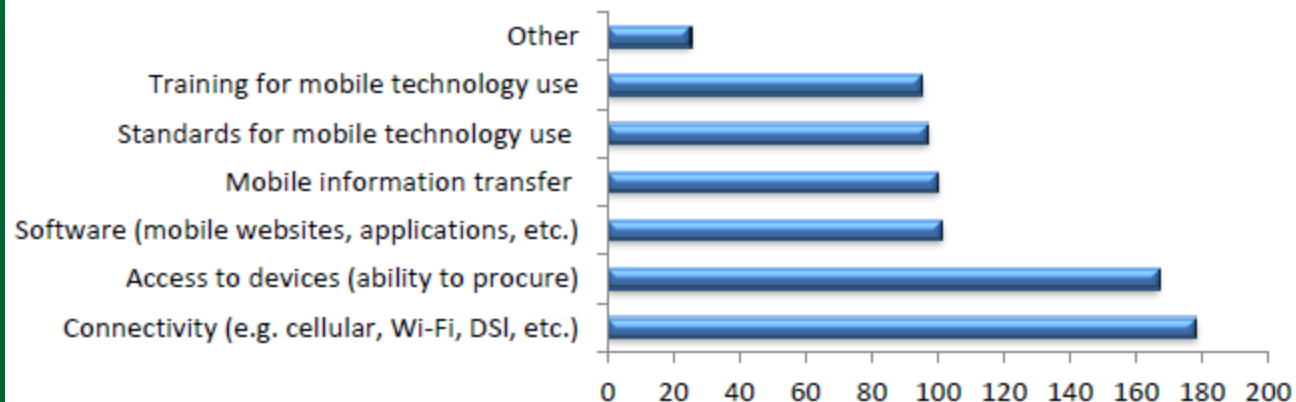
Impact of limited connectivity (speed/signal) on position performance





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Areas needing improvement



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How about some demos?

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QUESTIONS

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